UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,620	07/01/2004	Jigang Liu	CN 020002	4330

24737 7590 11/06/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
NGUYEN, TUAN HOANG	
ART UNIT	**PAPER NUMBER**
2618	

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/500,620	LIU, JIGANG	
	Examiner	Art Unit	
	Tuan H. Nguyen	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *5,8-14 and 16-20* is/are allowed.

6)☒ Claim(s) *1-4,6,7 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response To Arguments

1. Applicant's arguments filed on 09/05/2006 with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4, 6-7, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gardner (US PAT. 6,466,803) in view Westergren et al. (US PAT. 5,423,076 hereinafter, "Westergren") and further in view of Hung et al. (US PAT. 6,370,361 hereinafter, "Hung").

Consider claim 1, Gardner teaches transceiver for transmitting signals in a transmitting mode (item 48) and for receiving signals in a receiving mode (item 44) and comprising a single digital synthesizer (item 62) driven phase locked loop (item 60) (see fig. 3 col. 9 lines 16-31).

Gardner does not explicitly show that the characterized in that digital synthesizer driven phase locked loop, in transmitting mode, is in a modulating state, with digital synthesizer driven phase locked loop, in receiving mode, being in an oscillating state.

In the same field of endeavor, Westergren teaches characterized in that digital synthesizer driven phase locked loop (items 38 and 57), in transmitting mode, is in a modulating state (col. 8 lines 18-21), with digital synthesizer driven phase locked loop, in receiving mode, being in an oscillating state (see fig. 1 and fig. 3, col. 4 lines 12-66 and col. 10 lines 38-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, the characterized in that digital synthesizer driven phase locked loop, in transmitting mode, is in a modulating state, with digital synthesizer driven phase locked loop, in receiving mode, being in an oscillating state, as taught by Westergren, in order to provide both the digital CDMA and analog AMPS standards in one wireless phone expands effective user coverage area.

Gardner and Westergren, in combination, fails to teaches receiving a non-modulation signal including at least one of a dc-voltage and a ground voltage.

However, Hung teaches receiving a non-modulation signal including at least one of a dc-voltage and a ground voltage (see fig. 3 col. 4 lines 23-40).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Hung into view of Gardner and Westergren, in order to provide a transceiver with a receive/transmit fast switch function which can

efficiently prevent interference caused during a signal receive/transmit operation by using different receive/transmit intermediate frequency signals.

Consider claim 2, Westergren further teaches characterized in that digital synthesizer (item 58) driven phase locked loop (items 57) receives, in modulating state, a modulation signal (col. 10 line 38 through col. 11 line 2), with digital synthesizer driven phase locked loop (items 38 and 57), in oscillating state, receiving a non-modulation signal (see fig. 1 and fig. 3 col. 2 lines 34-45).

Consider claim 3, Westergren further teaches characterized in that transceiver (item 10) comprises a controller (item 59) for generating modulation signal and for generating control signals, with a switch (item 139) being coupled to controller and digital synthesizer driven phase locked loop (items 38 and 57) for in response to a first control signal supplying modulation signal from controller to digital synthesizer driven phase locked loop (items 38 and 57) and in response to a second control signal supplying non-modulation signal to digital synthesizer driven phase locked loop (items 38 and 57 col. 6 lines 35-50).

Consider claim 4, Gardner further teaches characterized in that digital synthesizer driven phase locked loop comprises, in modulating state, a first filtering performance, with digital synthesizer driven phase locked loop comprising, in oscillating state, a second filtering performance different from first filtering performance (see fig. 3

col. 9 lines 16-31).

Consider claim 6, Westergren further teaches characterized in that digital synthesizer driven phase locked loop (items 38 and 57), in modulating state, generates a modulated signal (col. 10 line 38 through col. 11 line 2), with digital synthesizer driven phase locked loop (items 38 and 57), in oscillating state, generating a non-modulated signal (col. 2 lines 34-45).

Consider claim 7, Westergren further teaches characterized in that an output of digital synthesizer driven phase locked loop (items 57) is coupled via a first switch (item 132) and a transmitter part and a second switch (item 139) to an antenna (item 14) for in response to a first control signal supplying modulated signal to antenna for transmitting modulated signal, with first switch further being coupled to a first input of a demodulator and with second switch further being coupled via a receiver part to a second input of demodulator for in response to a second control signal supplying non-modulated signal to demodulator for demodulating a radio signal received via antenna (see fig. 1 and Fig. 3 col. 9 lines 6-34).

Consider claim 15, Hung further teaches a mode detector configured to detect said transmitting mode and said receiving mode by making & calculation using a first predetermined time slot used for transmission and a second predetermined time slot used for reception (col. 4 lines 54-61).

Allowable Subject Matter

4. Claims 5, 8-14, and 16-20 are allowed over the prior art record.

5. The following is an examiner's statement of reasons for allowance:

The applicant's remarks, filed on 09/05/2006, have been carefully reviewed with updated search. Consequently, reasons for allowance of claims 5, 8-14, and 16-20 are set forth in according to the applicant's remarks state on pages 16-19.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any response to this action should be mailed to:

Mail Stop_____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571) 272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Nguyen T.N
Examiner
Art Unit 2618

Quochien B. Vuong 10/29/06

QUOCHIEN B. VUONG
PRIMARY EXAMINER